

### **REMARKS/ARGUMENTS**

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-7 and 9-12 are presently active, Claim 8 is canceled without prejudice, Claims 1-3 and 9 are amended. Since the amendments are merely formal in nature, they are not believed to raise a question of new matter.

In the outstanding Office Action, Claim 8 was objected to for informalities; Claims 1, 2 and 4-7 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 982410 (hereinafter "EP '410"); Claims 1, 2, 4, 5 and 9-11 were rejected under 35 U.S.C. §102(b) as being anticipated by JP 2001-107169 (hereinafter "JP '169"); Claims 1-7 and 9-11 were rejected under 35 U.S.C. §102(b) as being anticipated by Hirano et al. (U.S. Patent 6,780,375); Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over JP '169 or EP '410 or Hirano et al. in view of "ASM Handbook: Vol. 13 Corrosion" (hereinafter "ASM Handbook"); and Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over JP '169 or EP '410 or Hirano et al. in view of "Aluminum and Aluminum Alloys."

Regarding the objection to Claim 8, Claim 8 is canceled. Thus, it is respectfully submitted that the grounds for objection is now moot.

Regarding the rejection under 35 U.S.C. §102(b) and §103(a), Applicants respectfully submit that the rejection is overcome because, in Applicants' view, amended independent Claim 1 patentably distinguish over the applied references as discussed below.

Claim 1 is amended to recite that the aluminum alloy comprising Cu: 1 to 6.5 mass %, Zn: 0.05 to 1 mass %, Bi: 0.1 to 1 mass %, Sn: 0.1 to 1 mass %, ***B: 3 to 10 mass ppm.***

The outstanding Office Action acknowledges that JP '169, EP '410 and Hirano et al. do not disclose the presence of 3-10 ppm B (Office Action at page 4, lines 3 of paragraph 8). Instead, the outstanding Office Action relies on Aluminum and Aluminum Alloys to remedy

the deficiencies of JP '169, EP '410 and Hirano et al., stating that Aluminum and Aluminum Alloys teaches boron added to aluminum and its alloys as a grain refiner, at levels equal or less than 0.10 % B to effect the grain size of the cast structure (Office Action at page 4, lines 4-5 of paragraph 8).

However, Aluminum and Aluminum Alloys describes that boron can be used alone *at level of 0.005 to 0.1%* as a grain refiner during solidification (at page 41, the last four lines of the left column). That is, the boron content described in Aluminum and Aluminum Alloys is 50 to 1000 mass ppm.<sup>1</sup> Instead, Claim 1 is amended to recite boron of 3 to 10 mass ppm. By including boron of 3 to 10 mass ppm in the aluminum alloy for cutting processing, it enables to improve strength and cutting processability of the alloy and suppress an abrasion of a cutting tool. There is no teaching or suggestion in Aluminum and Aluminum Alloys to include boron of 3 to 10 mass ppm.

Thus, JP '169, EP '410, Hirano et al. and Aluminum and Aluminum Alloys fail to teach or suggest the aluminum alloy comprising Cu: 1 to 6.5 mass %, Zn: 0.05 to 1 mass %, Bi: 0.1 to 1 mass %, Sn: 0.1 to 1 mass %, ***B: 3 to 10 mass ppm.***

Accordingly, independent Claim 1 patentably distinguishes over the applied references. Therefore, Claim 1 and the pending claims therefrom are believed to be allowable.

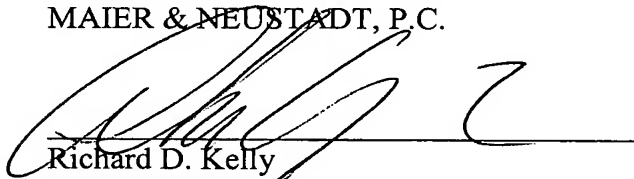
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<sup>1</sup> 1% = 10000 ppm

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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